

PATENT

Docket No.: 201487/1020 (E2-001PCT-US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Notomi et al.

Serial No. : 09/530,061 based on PCT/JP99/06213

Filed : November 8, 1999

For : METHOD OF SYNTHESIZING NUCLEIC
ACIDExaminer:
A. ChakrabartiArt Unit:
1632

AMENDMENT UNDER 37 CFR § 1.116

Commissioner for Patents
Washington, D.C. 20231
Box: AF

Dear Sir:

In response to the September 7, 2001, office action, please amend the above-identified patent application as follows:

In the Specification:

At page 40, line 9 through page 42, line 8, please replace the existing paragraphs with the following revised paragraphs:

At the 3'-side of the single-stranded nucleic acid thus displaced, there is a sequence F1 complementary to F1c in the same chain. F1 rapidly anneals to F1c in the same molecule to initiate synthesis of a complementary chain. When the 3'-terminal (F1) anneals to F1c in the same chain, a loop containing F2c (i.e., a first loop) is formed. (As illustrated in Fig. 2-(7), the same single-stranded nucleic acid also contains at the 5'-side a sequence R1 complementary to R1c in the same chain, which can likewise anneal to form a loop containing R2, i.e., a second loop.) As is also evident from Fig. 2-(7), the part of this loop containing F2c remains ready for base pairing. The oligonucleotide FA of the invention having a nucleotide sequence complementary to F2c anneals to the part of this loop (i.e., the first loop) and acts as the origin of synthesis of a complementary chain (7). Synthesis of a complementary chain from the loop proceeds while the reaction product in the previously